



Kids STEAM-to-go

GROWING SALT CRYSTALS

January 2021



<https://sciencenotes.org/how-to-grow-epsom-salt-crystals/>

Directions:

- Have an adult heat a pan of water just until it begins to bubble, then take the pan off the heat source.
- Pour in about 1/4 cup of salt and stir until the water is clear. If you don't see any salt grains in the water, stir in another spoonful. Keep stirring in salt until you see salt grains that won't dissolve when stirred.
- Slowly pour the hot water into a clean jar or another clear, heat-safe container. Stop before the salt grains fall into the jar. If there are undissolved salt grains in the jar, the crystals might grow around those grains instead of your string.
- Tie a string around a pencil or popsicle stick. Cut the string to be long enough to dangle in the water without touching the bottom.
- Balance the pencil on top of the glass jar. The string should hang inside the jar and extend into the water.
- Move the jar to a safe place where it will be undisturbed.

Materials List

- a small length of yarn
- popsicle stick or pencil
- 1/2 cup salt
(Epsom salt is provided, but table salt may be used instead)
- food color (optional)*
- jar or bowl*

*not provided

This project inspired by the sites listed below:

<https://sciencenotes.org/how-to-grow-epsom-salt-crystals/>

<https://thebeakerlife.com/salt-crystals-experiment-bdcb9f7f1d3>

Tips/Tricks:

- Try not to have the string touch the side of the jar as it will make smaller and lumpier crystals grow against the side.
- To grow a lumpy mass of crystals, keep the jar in the sun or a fan blowing near it on the lowest setting.
- To grow a single, large crystal, keep the jar in a cool shaded place. Keep it on Styrofoam or a similar material to absorb vibrations.



<https://thebeakerlife.com/salt-crystals-experiment-bdcb9f7f1d3>



Stayton Public Library

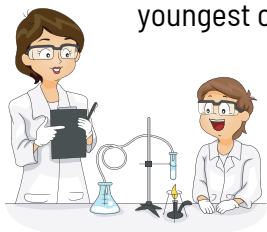


Modifications and extensions



For a younger crowd...

This would be a perfect project to collaborate on with your child, offering ways to help throughout the process that match what you know about their skills and abilities... the youngest of learners enjoy the process of creating alongside their trusted adults!



For more advanced learners...

Try to grow crystals with different kinds of salts, and compare the results. Do they take the same kind of shape when they grow? Do they grow at the same speed? What else might affect the growth of your crystals? Document your results.

Try this experiment again, adding food coloring to the solution. What do you notice?



Explore Further...

What other kinds of crystals could you grow?

Crystal Rainbow Science for Kids

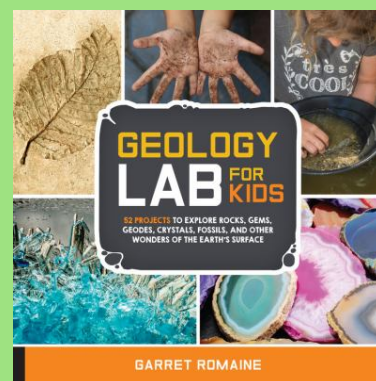


<https://littlebinsforlittlehands.com/crystal-rainbow-science-borax-crystal-growing-activity/>



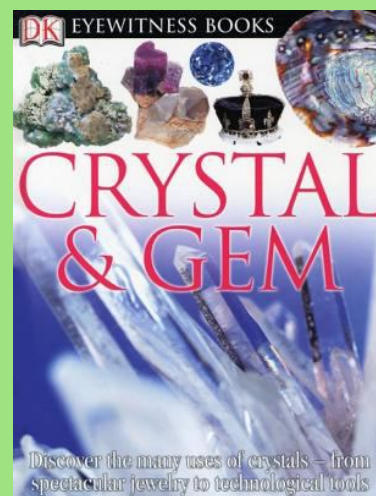
<https://learning-center.homesciencetools.com/article/crystal-growing-science/>

Titles to Explore



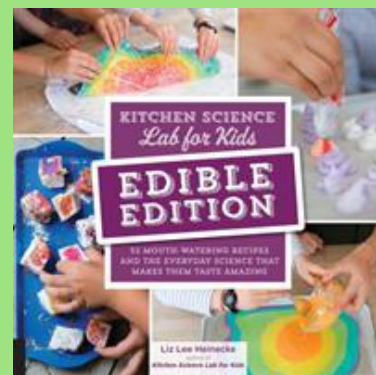
Geology lab for kids : 52 projects to explore rocks, gems, geodes, crystals, fossils, and other wonders of the earth's surface

by Garret Romaine



Eyewitness crystal & gem

by R. F. Symes



Kitchen science lab for kids : 52 mouth-watering recipes and the everyday science that makes them taste amazing

by Liz Lee Heinecke